

## **REMARKS**

Claims 1-37, 87-90 and 161-171 are pending in the patent application. Claims 1, 22 and 161 have been amended. Specifically, the phrase “meat having pigment” has been amended to “meat having meat pigment” to further clarify that the pigment is referring to meat pigment. No new matter has been entered.

The Applicants are submitting herewith evidence in the form of a 37 C.F.R. §1.132 declaration by one of the co-inventors Mr. Gary R. DelDuca (“the DelDuca Fifth Declaration”) (Exhibit 1) to further assist in explaining the applied references of U.S. Patent Nos. 4,522,835 to Woodruff (“Woodruff”) and 3,459,117 to Koch (“Koch”). The Applicants note that Mr. DelDuca previously submitted four declarations to assist in explaining the invention, showing the non-obviousness of the invention, explaining the phrase “turns brown in a natural time period” and explaining the applied references.

Reconsideration of the pending claims is respectfully requested.

### **I. Information Disclosure Statement (IDS)**

The Applicants are concurrently submitting the Seventh IDS. The Examiner is respectfully requested to review the references and make them of record.

### **II. 35 U.S.C. § 112, Second Paragraph, Rejection**

The Office Action states that the phrase “turns brown in a natural time period” as recited in independent claims 1, 22 and 161 is indefinite. The Applicants respectfully disagree. The Applicants previously submitted the DelDuca Fourth Declaration as Exhibit 1 in the Amendment and Response to Final Office Action Dated August 2, 2005 in support that the phrase “turns brown in a natural time period” is a phrase that is used and understood by those skilled in the art. Thus, for at least those reasons, the § 112, second paragraph, rejection should be withdrawn.

### **III. 35 U.S.C. § 103(a) Rejections**

As previously acknowledged by the Examiner, U.S. Patent No. 6,054,153 to Carr (“Carr”) and U.S. Patent No. 5,711,978 to Breen (“Breen”) do not disclose, teach or suggest the use of carbon monoxide (CO). The Office Action applies a number of references – Koch,

Woodruff, DE 1935566 A to Verbruggen (“Verbruggen”); and U.S. Patent No. 6,042,859 to Shaklai (“Shaklai”) in an attempt to cure this deficiency in Carr and Breen. It would not have been obvious to combine Carr or Breen in view of other references such as Koch, Woodruff, Verbruggen and/or Shaklai to arrive at the present invention.

#### **IV. Applicants Previously Presented Evidence Of Non-Obviousness Of Independent Claims 1, 22 And 161**

Assuming, *arguendo*, that a *prima facie* case has been presented (which Applicants believe is not the case), the Applicants previously submitted evidence of non-obviousness in the form of two declarations in the Amendment and Response to Office Action that was filed on June 16, 2004 — the Hunt Declaration (Exhibit 1 of the Prior Response) and the DelDuca Second Declaration (Exhibit 2 of the Prior Response). Some of the evidence presented was directed to the understanding that those of ordinary skill in the art, prior to the Applicants’ invention, believed that CO “fixed” the color of the meat pigment.

##### **A. Prior To The Applicants’ Invention, Those Of Ordinary Skill In The Art Believed That CO Fixed The Color Of The Meat Pigment**

Specifically, the Applicants submitted evidence that prior to the Applicants’ invention, those of ordinary skill in the art believed that CO “fixed” the color of the meat pigment:

(a) CO not allowed with fresh meat in the U.S. since at least 1962, until Applicants came up with novel approaches of using CO in modified atmosphere packaging (MAP) systems that avoided the concern of “fixing” the meat color;

(b) In a 1962 letter, the FDA told a Whirlpool representative that it might need additional data “to establish that the treatment of meat would not serve to cause the meat to retain its fresh red color longer than meat not so treated” and that the FDA has a question “concerning possible deception of the consumer where treatment of the meat leads to longer retention of the fresh red color.”;

(c) A previously applied reference in this application “The Storage Life Of Beef And Pork Packaged In An Atmosphere With Low Carbon Monoxide And High Carbon Dioxide” from *Meat Science* to Sorheim et al. (“Sorheim”) disclosed that its meat packaging systems with

a modified atmosphere of “0.4% CO/60% CO<sub>2</sub>/40% N<sub>2</sub> had a bright stable red colour that lasted beyond the time of spoilage.” Abstract of Sorheim; and

(d) Dr. Hunt, who has extensive experience in the processing of meats using modified atmosphere packaging, stated that it was understood by those skilled in the art that CO fixes (creates a stable form of myoglobin that could mask spoilage) the color of the meat pigment to red.

**B. The Applied References Of Shaklai, Koch And Woodruff Do Not Teach Or Suggest That The Use Of CO Turns Meat Pigment Brown In A Natural Time Period**

As previously discussed in the Amendment and Response to Final Office Action Dated August 2, 2005 in detail, Shaklai does not teach or suggest the claimed limitation of “wherein the carbon monoxide associated with the raw meat within the first package is adapted to be removable such that the color of the meat pigment is not fixed and turns brown in a natural time period upon removal of the second package,” that is specifically recited in independent claims 1, 22 and 161. Since Shaklai teaches that CO “fixes” the color of the meat pigment after exposure to the atmosphere, there would be no motivation to combine Shaklai with the other applied references in the pending rejections.

The Applicants also previously discussed the applied reference of Koch in the Amendment and Response to Final Office Action Dated August 2, 2005 in detail. In summary, Koch does not teach or suggest that the use of CO turns meat pigments brown in a natural time period after removal of the CO-containing film because it would not be reasonable that exposing a relatively small quantity of CO that is gradually released from the CO-containing film to a large quantity of meat (primal cuts) would expose CO to the non-surface meat pigments. Since Koch does not teach or suggest that the use of CO turns meat pigment brown in a natural time period after removal of the CO-containing film, there would be no motivation to one of ordinary skill in the art to combine Koch with (a) Carr, Shaklai and Woodruff; or (b) Breen, Shaklai, Woodruff and Hermann as in the pending rejections.

In summary, neither Shaklai nor Koch teaches or suggests that the meat pigment upon exposure to CO does not “fix” the color of the meat pigment after exposure to the atmosphere.

In this Office Action, the applied reference of Woodruff was further discussed. Woodruff does not teach or suggest that the color of the meat pigment turns brown in a natural

time period. DelDuca Fifth Decl. ¶ 4. For example, Woodruff in Example 1 discloses a 0.5 lb. beefsteak that was exposed to 0.5% CO, which was nearly all absorbed two days later. *See* col. 4, lines 34-48; DelDuca Fifth Decl. ¶ 4. After being exposed in a modified atmosphere that included 16% oxygen, “the beefsteak retained its good red color, and the carboxymyoglobin color had penetrated no more deeply than it had at the end of the two days.” *See* col. 4, lines 49-54. This passage implies that the carboxymyoglobin color was still retained within the beefsteak after 6 days despite being exposed to an atmosphere with a generally similar amount of oxygen as in air (compare about 21% oxygen to 16% oxygen). DelDuca Fifth Decl. ¶ 4. It would be expected to one skilled in the art that the beefsteak would turn brown in about 2-3 days, depending on the cut of meat. *Id.* Thus, this example clearly shows that the beefsteak of Woodruff in Example 1 did not turn brown in a natural time period, but rather “fixed” the color of the meat pigment. *Id.* Similarly, in Example 1 of Woodruff, a 0.5 lb. beefsteak exposed to 2.5% CO under similar conditions also retained its good color after 6 days. *See* col. 4, line 55-col. 5, line 6; DelDuca Fifth Decl. ¶ 4.

None of the other examples of Woodruff supports a modified atmosphere package wherein the CO associated with the raw meat is adapted to be removed such that the color of the meat pigment is not fixed and turns brown in a natural time period. DelDuca Fifth Decl. at ¶ 5. Rather, the other examples of Woodruff generally disclose the condition of the meat pigment while being stored in a modified atmosphere containing CO. *Id.* In summary, Woodruff does not disclose, teach or suggest that the use of CO on meat pigment turns brown in a natural time period, but rather Woodruff teaches and suggests “fixing” the color of the meat pigment in Example 1. *Id.* at 6.

Since Woodruff does not teach or suggest that the use of CO turns meat pigment brown in a natural time period after removal of the CO-containing film, there would be no motivation to one of ordinary skill in the art to combine Woodruff with (a) Carr, Shaklai, and Koch; or (b) Breen, Shaklai, Koch and Hermann as in the pending rejections.

## **V. Independent Claims 1, 22 and 161**

Therefore, the submitted evidence summarized above indicates that prior to the Applicants’ invention, those of ordinary skill in the art believed that CO “fixed” the color of the meat pigment after exposure to the atmosphere.

Additionally, the Applicants presented compelling evidence directed to long-felt need and commercial success in the Amendment and Response to Office Action filed on June 16, 2004 that further supports the non-obviousness of the present invention.

Therefore, independent claims 1, 22 and 161 are not obvious in view of Carr, Woodruff, Breen, Verbruggen, Shaklai or any combination thereof and, thus, should be in a condition for allowance.

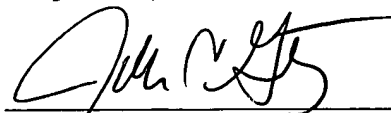
**VI. Dependent Claims 2-21, 23-37, 87-90 and 162-171**

Dependent claims 2-21, 23-37, 87-90 and 162-171, which depend directly or indirectly on independent claim 1, 22 or 161, are not obvious in view of Carr, Woodruff, Breen, Verbruggen, Shaklai or any combination thereof for at least the same reasons discussed with respect to claims 1, 22 and 161. Thus, claims 2-21, 23-37, 87-90 and 162-171 should be in a condition for allowance.

**VII. Conclusion**

The Applicants submit that the claims are in a condition for allowance and action toward that end is earnestly solicited. A check in the amount of \$910.00 is enclosed for the Request for Continued Examination (RCE) and one month extension of time fees. It is believed that no additional fees are due; however, should any additional fees be required (except for payment of the issue fee), the Commissioner is authorized to deduct the fees from Jenkins & Gilchrist, P.C. Deposit Account No. 10-0447, Order No. 47097-01080USPT.

Respectfully submitted,



John C. Gatz  
Reg. No. 41,774  
JENKENS & GILCHRIST, P.C.  
225 West Washington Street  
Suite 2600  
Chicago, IL 60606-3418  
(312) 425-3900 – telephone  
(312) 425-3909 - facsimile

Attorneys for Applicants

May 25, 2006  
Date